

Class X – Science
Model Question Paper
(SET- 4)

Time: 3 Hours

Maximum Marks: 80

QUESTION PAPER STRUCTURE

Section Type		Questions Marks	
A	MCQs	20	20
B	Very Short Answer	5	10
C	Short Answer	6	18
D	Long Answer	5	25
E	Case Based	1	7
Total		37	80

SECTION A – MCQs (1×20 = 20)

1. A solution with pH value 10 is:
 - A. Neutral
 - B. Acidic
 - C. Basic
 - D. Salt
2. The mirror that forms image at focus when object is at infinity is:
 - A. Plane mirror
 - B. Convex mirror
 - C. Concave mirror
 - D. Cylindrical mirror
3. The unit of electrical resistance is named after:
 - A. Ampere
 - B. Volt

- C. Joule
 - D. Ohm
4. Which hormone regulates metabolism in human body?
- A. Insulin
 - B. Thyroxine
 - C. Adrenaline
 - D. Growth hormone
5. Which metal is least reactive?
- A. Sodium
 - B. Magnesium
 - C. Copper
 - D. Potassium
6. The chemical name of Plaster of Paris is:
- A. Calcium carbonate
 - B. Calcium sulphate hemihydrate
 - C. Calcium hydroxide
 - D. Calcium chloride
7. Image formed by a convex lens when object is beyond $2F$ is:
- A. Virtual and erect
 - B. Real and inverted
 - C. Virtual and inverted
 - D. Real and erect
8. Which material is used as fuse wire?
- A. Copper
 - B. Aluminium
 - C. Iron
 - D. Alloy of tin and lead
9. The transfer of pollen grains from anther to stigma is called:
- A. Fertilization
 - B. Germination
 - C. Pollination
 - D. Reproduction
10. Which gas is released during photosynthesis?
- A. Oxygen
 - B. Carbon dioxide
 - C. Nitrogen
 - D. Hydrogen

11. The SI unit of electric power is:
- A. Joule
 - B. Watt
 - C. Ampere
 - D. Volt
12. Which metal is used for galvanization?
- A. Copper
 - B. Iron
 - C. Zinc
 - D. Aluminium
13. Which process forms alcohol from sugar?
- A. Respiration
 - B. Fermentation
 - C. Oxidation
 - D. Reduction
14. The power of a concave lens is always:
- A. Positive
 - B. Negative
 - C. Zero
 - D. Infinite
15. Which acid is present in ant sting?
- A. Acetic acid
 - B. Formic acid
 - C. Citric acid
 - D. Oxalic acid
16. Which mirror is used in solar cooker?
- A. Plane mirror
 - B. Convex mirror
 - C. Concave mirror
 - D. Cylindrical mirror
17. The green pigment present in leaves is:
- A. Carotene
 - B. Chlorophyll
 - C. Xanthophyll
 - D. Anthocyanin
18. Removal of nitrogenous waste from body is:
- A. Respiration

- B. Circulation
- C. Excretion
- D. Nutrition

19. Which metal is extracted from bauxite ore?

- A. Iron
- B. Copper
- C. Aluminium
- D. Zinc

20. Which device is used to measure electric current?

- A. Voltmeter
- B. Ammeter
- C. Galvanometer
- D. Rheostat

SECTION B – Very Short Answer (2×5 = 10)

- 21. Define radius of curvature of a mirror.
- 22. What is non-biodegradable waste?
- 23. Name the hormone responsible for fight-or-flight response.
- 24. Write one use of Plaster of Paris.
- 25. Define electric circuit.

SECTION C – Short Answer (3×6 = 18)

- 26. Explain the role of acids in daily life.
- 27. Draw ray diagram for image formation by concave mirror when object is between F and C.
- 28. State Ohm's law. Write its mathematical form.
- 29. Write two differences between arteries and capillaries.
- 30. What is mineral ore? Give one example.
- 31. Define trophic level in a food chain.

SECTION D – Long Answer (5×5 = 25)

32. Describe the process of digestion in human small intestine.
 33. Derive the formula for electric power and state its unit.
 34. Explain the female reproductive system in humans with diagram.
 35. Write properties and uses of bases.
 36. Explain dispersion of white light by prism with diagram.
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SECTION E – Case Based Question (1×7 = 7)

37. Case Study – Metals and Non-Metals:

A metal X reacts with dilute hydrochloric acid and releases hydrogen gas. The metal is used for making electric wires.

- a) Identify the metal X.
 - b) Write chemical equation of the reaction.
 - c) Name the type of reaction.
 - d) State one property of metal X.
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